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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Haller et al.

Application No.: 09/531,375

Group Art Unit: 1648

Filed: March 21, 2000

Examiner: Salima, A.

For: RECOMBINANT  
PARAINFLUENZA VIRUS  
EXPRESSION SYSTEMS AND  
VACCINES

Attorney Docket No.: 7682-049

**RESPONSE TO RESTRICTION REQUIREMENT UNDER 37 C.F.R. § 1.111**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action dated June 28, 2001, and pursuant to Rule 111 of the Rules of Practice, please consider the following election and remarks. Applicants submit herewith a Petition to Extend Time for two months, up to and including September 28, 2001, accompanied by the appropriate fee.

The Examiner has required restriction of the claims to one of the following inventions:

- I. Claims 1-6, drawn to chimeric parainfluenza virus comprising backbone bovine parainfluenza.
- II. Claims 7-11, drawn to recombinant DNA or RNA encoding chimeric parainfluenza virus.
- III. Claims 12-16 drawn to a vaccine formulation.

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In response to the Examiner's request, Applicants hereby elect with traverse,  
consideration of the claims of Group I. Entry of the foregoing remarks is respectfully  
requested.

Date September 7, 2001

Respectfully submitted,

by: *Jacqueline Benn*  
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Enclosure

**EXHIBIT A**  
**PENDING CLAIMS**  
**IN U.S. APPLICATION SERIAL NO. 09/531,375**  
**AS OF ENTRY OF AMENDMENT DATED SEPTEMBER 7, 2001**  
**ATTORNEY DOCKET NO. 7682-049**

1. A chimeric parainfluenza virus comprising a backbone encoded by nucleotide sequences derived from a Kansas-strain bovine parainfluenza virus type 3 genome in which Kansas-strain bPIV3 nucleotide sequences have been substituted with heterologous sequences or in which heterologous sequences have been added to the complete Kansas-strain bPIV3 genome.
2. The chimeric parainfluenza virus of claim 1, wherein the heterologous sequences are derived from a human parainfluenza virus.
3. The chimeric parainfluenza virus of claim 2, wherein the heterologous sequences encode the F and HN glycoproteins of a human parainfluenza virus.
4. The chimeric parainfluenza virus of claim 3, wherein the F and HN glycoproteins of an hPIV are derived from human parainfluenza virus type 3.
5. The chimeric parainfluenza virus of claim 1, wherein the heterologous sequences are derived from an influenza virus or from a respiratory syncytial virus.
6. The chimeric parainfluenza virus of claim 1, wherein the Kansas-strain bPIV3 backbone contains mutations or modifications, in addition to heterologous sequences, which result in a chimeric virus having a phenotype more suitable for use in vaccine formulations such as an attenuated phenotype or a phenotype with enhanced antigenicity.